

**BEFORE THE**  
**IDAHO PUBLIC UTILITIES COMMISSION**

**CASE NO. GNR-E-02-1**

**IDAHO POWER COMPANY**

**EXHIBIT NO. 101**

**JAY K. JOHNSON**

---

**JAY K. JOHNSON, P.E.**  
**Vice President**  
Project Manager, Area Manager

**Years of Experience**  
25

**Education**  
B.S., Mechanical Engineering, University of California, 1971

**Professional Affiliations**  
ASME

**Professional Registrations**  
California, 1982, 21371  
Connecticut, 2001, 22249  
Arizona, 2002, 37156

**Key Qualifications**

Jay Johnson has over 25 years of professional experience in the design, engineering, and management of power generation projects for industrial, institutional, and municipal facilities. Activities have included the application and selection of power plant and process equipment, and the management of projects from the proposal phase through plant commissioning and startup. Primary fields of expertise are gas turbine peaking plants, gas turbine combined cycle plants, cogeneration applications, fluidized bed combustion, high pressure piping systems, chilled water generation and distribution systems, air pollution control, and heat transfer.

Recent experience consists of engineering design and concept studies for cogeneration, resource recovery, pollution control and energy related projects. This includes preparation of feasibility studies, cost estimates, financial proformas, permitting, air quality modeling, mass and energy balances, plant design, specifications, construction surveillance, and startup support. Recent specialized project experience includes:

- Project Manager for a 75 MW gas turbine peaker project located in Red Rock, Arizona for Pinnacle West Energy. As part of the joint venture management team, Jay was responsible for the design of the facility, which included a GE Frame 7EA DLN turbine, exhaust stack, CEMs, inlet air fogging system, water treatment, power distribution and controls. To save cost and improve performance, the new facility utilizes the existing cooling tower for lube oil cooling.
- Project Manager for a 75 MW gas turbine-generator project located in Tucson, Arizona for the Tucson Electric Power Company. Jay was responsible for complete engineering and design of the project as part of a joint venture arrangement with the EPC contractor. The project includes the installation of a General Electric 7EA gas turbine-generator in simple cycle along with auxiliary mechanical and electrical systems. Electric power is fed at 138 kV to the utility grid. As engineering project manager, Jay was responsible for the full coordination of all design disciplines, client design interface, and interface with the EPC contractor.
- Project Manager for a 250 MW simple cycle, gas turbine power plant located in Wallingford, CT. This PP&L facility includes five GE LM6000 gas turbines complete with SCRs, gas compressors, chillers, water treatment equipment, CEMs, and power and control systems. The facility was designed to be operated from a remote location.

- Project Manager for the 750 MW Macae, Brazil peaker project for El Paso Energy. This fast track project included 16 LM6000 combustion turbines of which 12 were fabricated in Norway and 4 were fabricated in the US. The project included chilled water systems, water treatment systems, a 345 KV substation and a river intake and outfall system.
- Project Manager for a 95 MW cogeneration facility in Sacramento, California which provides electric power to the Sacramento Municipal grid, and extraction steam to an adjacent ice-making facility. Jay was responsible for an evaluation of alternative configurations for this innovative plant which was partially fueled by digester gas recovered from an adjacent wastewater treatment plant. For the subsequent design/build construction phase, Jay was responsible for coordination of all design disciplines, client/contractor interface and start-up support. The electric power generated on-site is fed into the Sacramento Municipal Utility Grid, while heat recovered from the gas turbine exhaust is converted to steam and exported to an adjacent ice-making plant. In the colder winter months, steam is returned to the wastewater treatment facility to warm the digesters.
- Project Manager for the complete engineering and design of the Sabine Cogeneration Project, a 120 MW turnkey, design/build project located in Orange, Texas. The project utilizes two GE Frame 6 combustion turbines. Jay was responsible for design of a specialized water treatment system, capable of handling the high organic levels common in the supply water fed to the plant. The plant provides over 90% of the electrical and steam requirements of a Bayer Corporation chemical plant located adjacent to the facility.
- Project Manager for the complete analysis, engineering and design of a 30 MW combined cycle cogeneration facility in Watsonville, California which incorporates a LM2500 system. Jay's effort included complete project design and administration, scheduling and budget control permitting and environmental review, construction surveillance, O&M manuals, and start-up and acceptance testing.
- Project Manager responsible for preliminary engineering of a 450 MW cogeneration facility in Hermiston, Oregon. This effort included an economic analysis of alternative configurations.
- Project Manager for a 6,400 kW privately owned landfill gas project in San Diego, California. This project required extensive review by the City of San Diego, since the facility is located in a state-of-the-art wastewater treatment plant. This is the first "privatized" facility of this type in San Diego. The facility provides power, hot water, and chilled water to the wastewater treatment plant.
- Project Manager for a central plant utilities study and subsequent cogeneration plant design at the University of California San Francisco (UCSF). This project included addition of 6,800 Tons of chilled water, low NOx burners, expansion of a chilled water loop and various upgrades to a 40 year old steam boiler facility.
- Project Manager for the mechanical design upgrade of a cogeneration plant fueled by almond shells operated by Blue Diamond Growers, Sacramento, California. Jay's responsibilities included overall direction and coordination for this energy efficiency upgrade which has increased plant output from 8.5 to 11.1 MW while decreasing fuel usage by over 10 percent.
- Project Manager for a condenser cooling system upgrade of a 22 MW wood-fired power plant. Jay's analysis reviewed various methods of increasing the power output capability of the plant during the summer months by increasing the cooling capacity of the existing system.

Jay has secured patents for innovative combustion techniques, including a combustion process for high nitrogen, high ash fuels, and a system for controlling and reducing NOx emissions. In addition, he has managed several waste-to-energy projects utilizing biomass, wood waste, tire pyrolysis, and municipal solid waste. Additional design experience includes power plant boiler systems. Typical of these steam distribution and boiler projects are a power plant for American Lignite, Lone, California, an ordnance-burning facility for the US Army in Pine Bluff, Arkansas and a sewage sludge burning facility for the City of Maynard, Massachusetts. Jay provides project management training to employees as part of a mentor program. Jay is well versed on the use of GTPRO and Primavera software.

# **Parsons Brinckerhoff and PB Power**

## **An Overview**

---

Parsons Brinckerhoff (PB) founded in 1885, is one of the oldest continually operating engineering consulting firms in the United States. We are an internationally experienced, multidisciplinary planning, design and construction management firm and enjoy a reputation of successfully completing many complex projects in planning, engineering, architecture and construction services. The firm has consistently been in the top 10 percent of the *Engineering News-Record's* listing of the 500 leading architect/engineering firms in the U.S. Parsons Brinckerhoff is ranked in the top 5 percent of pure design firms in ENR's 2001 Listing in the U.S., and one of the first to be ISO 9001 certified.

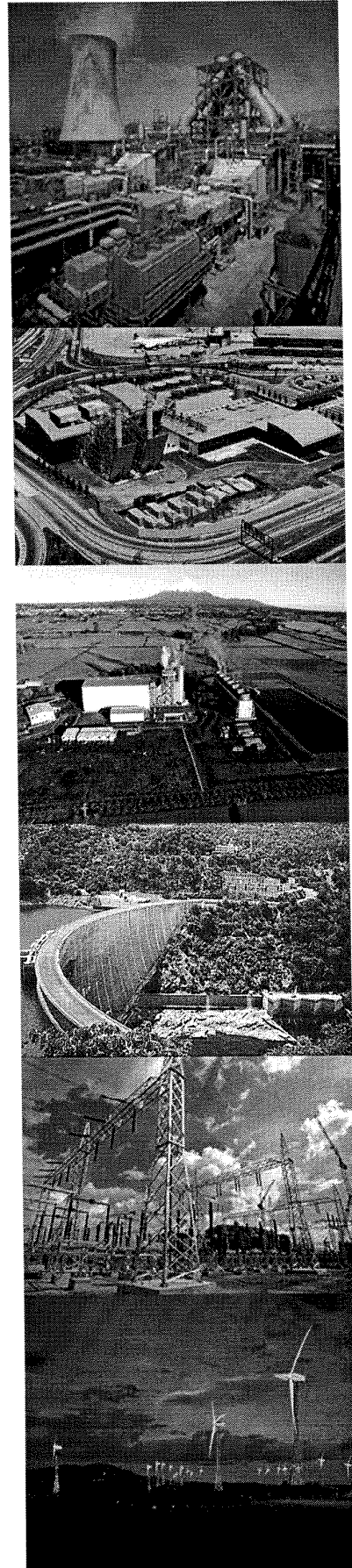
Reflecting our growth, we have more than 250 project and corporate offices around the world. PB is proud to be employee-owned, and presently has staff resources of over 9,200 professional, technical, management and administrative personnel. Our specialists have state-of-the-art knowledge of equipment and practices and are supported by professionals skilled in disciplines needed for all spheres of project development — planning, financial feasibility, civil, electrical, mechanical, structural, architectural and environmental engineering, and construction services.

Throughout our history, PB has successfully managed a comprehensive range of complex projects — extending virtually across the complete spectrum of human construction endeavors — encompassing both the public and private sectors, and a myriad of project types, and ranging in size from a few thousand dollars to several billion dollars. The firm has an established reputation in infrastructure planning and design, including power plants and power distribution systems, transit systems, tunnels, bridges, highways, and airports. We believe that one of the best measurements of successful past performance is the amount of repeat business a company receives. During a recent internal project audit, it was discovered that over the past 10 years, 83 percent of our business has been with repeat clients. We attribute our continuing reputation for excellence in professional services to our past project performance.

PB is currently leading world-class infrastructure engineering and construction projects in major U.S. cities and around the world. Projects range from management consultant for Boston's \$7.7 billion Central Artery/Tunnel (in joint venture), to converting Austin's Bergstrom Air Force Base into a new municipal airport as part of the military base realignment program (\$600 million), to program management for the \$1.2 billion Greater Cairo Metro (in joint venture), to supplying power to Yangpu, a \$12 billion infrastructure development in the People's Republic of China as project manager for the Yangpu Power Plant and designer of associated facilities (\$180 million).

PB Power is our specialized power engineering company dedicated to the engineering, design and construction of power projects.

**PARSONS  
BRINCKERHOFF**



## ***PB Power Inc.***

The PB Power group combines the expertise of several leading engineering organizations:

- Merz and McLellan, a century-old power engineering consultancy based in the United Kingdom
- Kennedy & Donkin, an international engineering firm founded in the United Kingdom in 1889
- DesignPower, New Zealand's premier power group, well-known for its geothermal division, GENZL
- The US-based power engineering resources of Parsons Brinckerhoff.

PB Power is best known for technical innovation and achieving commercial success for our clients in power generation, transmission and distribution, and allied power projects. We offer comprehensive design, engineering and project management services from pre-feasibility to commissioning and the versatility to act as owner's engineer, lender's engineer, project manager, partner or prime contractor on engineer-procure-construct (EPC) teams – to suit clients' requirements in the pursuit of economical high-performance projects. Extensive financial and project development services and the full scope of electrical, mechanical, civil, structural, process, quality and environmental engineering skills further assure our ability to produce total solutions for today's power industry.

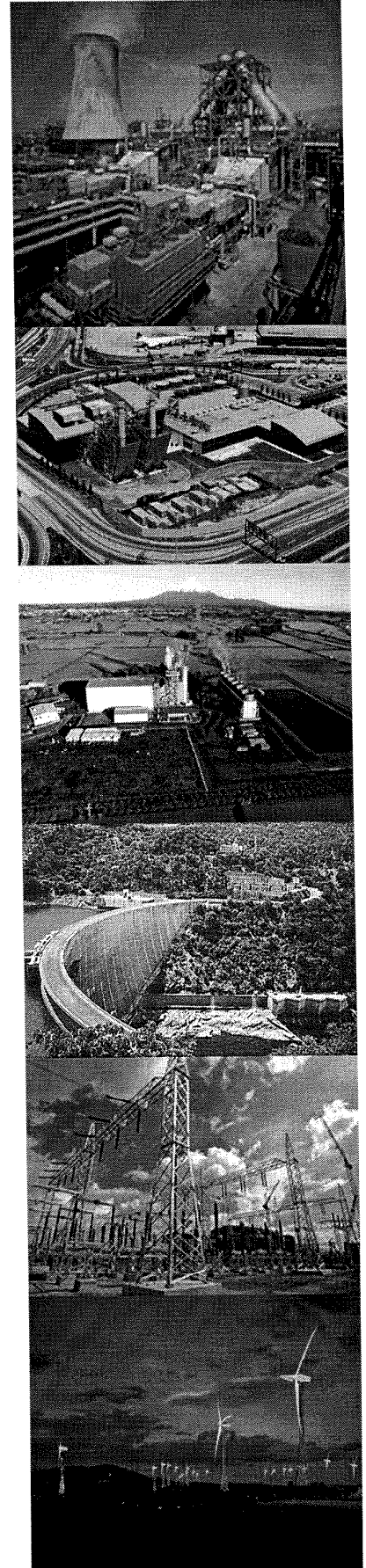
### ***Power Generation***

PB Power's experience in power generation encompasses a wide range of fuel and plant types. We've engineered more than 75,000 MW of power at over 300 sites around the globe in the past 25 years alone. World leaders in conventional power generation technology, we're also known for groundbreaking work in cogeneration and renewable resources. When we take on plant rehabilitations, expansions and modernizations, the results are safer, more reliable plants with greater efficiencies and reduced operating costs.

### ***Transmission and Distribution***

In the past 25 years PB Power has engineered over 30,000 km of transmission lines and related substations at voltages up to 500 kV, with proven results in both urban and rural development and rehabilitation. Internationally recognized for pioneering work in EHV transmission, we also supported the early development of HVDC schemes. We have provided detailed engineered for permanent and temporary substations for quick connection to rapidly growing power networks. Our capabilities are supported by integrated computer systems that combine terrain data and overhead line design criteria into minimum-cost solutions for power transmission and distribution.

**PARSONS  
BRINCKERHOFF**



## **Representative Cost Estimating Experience with Large Combined Cycle Plants in the U.S.**

---

The staff of PB Power has extensive experience and an impressive track record with respect to estimating costs on large power projects. For both EPC roles and as Owner's Engineer on design and construct efforts we have developed streamlined procedures which allow us to be highly efficient and accurate with our cost estimates. We have developed an extensive database of both equipment and labor factors which facilitate our estimating activities. Detailed estimates have been prepared for the following representative projects.

- **Carson Ice-Gen, California**
- **Coyote Springs Cogeneration, Oregon**
- **Ensearch Hamakua, Hawaii**
- **Hanford, Washington**
- **Hermiston Cogeneration, Oregon**
- **Lordsburg Cogeneration, New Mexico**
- **NCPA, California**
- **North Canadian Power – Syracuse University, New York**
- **Sabine Cogeneration, Texas**
- **Santa Teresa, New Mexico**
- **Snohomish Cogeneration, Washington**
- **Union Carbide-Seadrift, Louisiana**
- **KOCH Chemical, Louisiana**
- **University of Washington, Washington**